

CHICAGO, Dec. 5.—The speech of R. A. Fowler, president of the National Irrigation congress, which was delivered to that body yesterday, is as follows:

Your Excellency, the Governor; Mr. Mayor, Distinguished Guests, Fellow Delegates, Ladies and Gentlemen:

At, and since, the eighteenth irrigation congress at Pueblo, Colo., last year, the question has been asked many times, "Why should the nineteenth irrigation congress cross the Mississippi river into a humid country to hold its sessions?"

renness to fertility, poverty to wealth, and degradation to civilization, was, but a few years ago, considered a wild fancy. Nevertheless, we ourselves have seen all of this accomplished by the pioneer and United States reclamation service, and the end is not yet. To quote the late Governor Johnson, there are still in the west "homes for the homeless, food for the hungry, work for the unemployed, land for the landless, gold for the penniless, freedom for the enslaved, adventure for the restless, danger for the brave, an unknown world to conquer, and a new room for all."

The early records of the irrigation

While the east tides the west, and not far away the mighty Mississippi flows majestically to the Gulf, bearing on its tawny bosom life, productivity, wealth—an impressive illustration of the power and efficiency of united effort. From the northern boundary of your domain, even from the Minnesota border and the lakes of Minnesota, the Father of Waters comes down to meet the Ohio with its rich freightage of mining, agricultural and manufactured products from the Middle and Central states; farther along the turbid Missouri pours in its wealth of moisture, the contribution of the Rocky Mountains and the great plains, while the Arkansas, the Red and other tributaries complete the Nature's great river system, which undies by far stronger and more enduring than steel or bronze, the commercial interests of the grandest federation of states this world has ever seen.

New England, with its rock-bound coast and granite hills, is the scene of an address of welcome which was eloquently responded to by Mr. Max. There lie my bones of the last generation—three hundred years—study them and women who helped to mold the national character.

The Middle states, with their vast mining and manufacturing resources, are a mighty element in our body.

"You are all more or less familiar with the early history of this congress. For the first four or five ses-

But there is a greater fascination and a greater charm in the unlimited opportunities of the great west, with its mineral and fertile wealth, its fertile and affluant citrus fruits, its fertile and affluant and the grandeur of its fertile land; but, above all, in its spirit of independence, in its fervid patriotism, in the quality of its citizenship. There is, too, a fascination and a constant delight in the consciousness of being a potent factor in local development and creation; of living in a community of cooperation, in a ozone atmosphere of cooperation, in a municipal pride and civic up-lift. In short, there is joy and daily inspiration in life, growth and perception.

Slowly, but surely, "westward the star of empire takes its course." Slowly, but with equal certainty, the center of population moves westward. From New England across the continent the pioneer has blazed the trail, carried the church and little red schoolhouse," planted the mill, hill-top and in valleys, and crossed the western prairies and the Rocky mountains, where is now developing the richest type of manhood, womanhood and civilization.

or pioneers, patriots, and workers for the public good, and if any such, having done public or semi-public work, look for or expect full compensation this side of heaven, they are likely to be sorely disappointed.

and unity are, in fact, contributing to the wealth, happiness and prosperity of the arid west, are all the tangible results of the vigorous propaganda which for years before the passage of the national irrigation act, this congress carried on for irrigation, forestry and reclamation, in the face of general ignorance as to the facts, sectional prejudice and hostile criticism. Then it was considered an iridescent dream and treated accordingly by the great majority everywhere. But the idea contained a living germ, a vital principle, which steadily grew and flourished. In time far-seeing men began to advocate it. Statesmen and orators enlisted in its cause and eloquently expounded its benefits to the nation, not alone to arid America, but to the entire nation, east and west. Special provision has been made for giving exceptional attention to drainage, both in connection with reclamation projects and in the reclamation of swamp and overflow lands in the humid as well as in the more arid portions of the country."

Under this authorization, the board of control have invited public attention especially to the drainage of our wet lands as a means of national growth and continued prosperity. The attendance of citizens interested in swamp and overflow lands has been earnestly urged to appoint delegates in the interest of the development of this great, but hitherto neglected, resource. It seems peculiarly fitting for the interests represented in the arid lands, especially in moving for federal legislation required to develop the swamp and overflow lands, to have

Suggested Amendments to National Irrigation Act.

More than nine years have passed since the National Irrigation act became a law and the reclamation service was organized. As anticipated by its friends, the act has in practice demonstrated some weaknesses which should be corrected, but ought now be left untouched.

Thus far no attempt has been made to formulate a policy looking to the reclamation of our lands by drainage, but it is hoped that the deliberations of this congress will lead, or at least, point the way, to the adoption of a wise mode of procedure, both by the states and by the federal government.

Second — Theoretically, irrigated lands under any government project ought to furnish the best security for a conservative loan at a low rate of interest. But this is the fact? Outside capital shies at such loans because, in case of foreclosure, the act operates against the mortgagor and prevents him as a "non-resident." This is the case? Can this be remedied in the interest of the mortgagor and mortgagee?

I call the attention of the delegates to these acknowledged weaknesses in the irrigation act with the hope that they may be given the consideration which their importance deserves and proper regulations regarding same be adopted.

the problem of drainage, a fact which has naturally brought this congress into close sympathy with the swamp and drainage question as embodied in its resolutions of past years.

Of the land area of the United States (about 1,920,000,000 acres), more than half is either too dry or too mountainous for settlement. Nearly half of the remainder has now passed into private hands, and the balance is in the hands of a few "rich enough to give us all a farm." Indeed, the federal government has already undertaken to eke out the supply of land for homes by irrigating the fertile valleys of the arid west. Some 75,000,000 acres have been, or may be, reclaimed by irrigation. These lands are so richly productive that they will sustain a population of 75,000,000—that is, to that of the United States in 1900.

able to themselves, the state and the nation. In other words, this is a superb question of national conservation which will readily appeal to patriotic and public spirited citizens north, east, and west, as well as south.

"In union there is strength. Let us all join together."

### The Real Gift of Irrigation.

While the benefits derived from irrigation are often stated in measurable terms by acres of land brought under ditches, by bushels or tons of product, and by increased population of arid states—all this, great though it be, fails to express the true nature of the benefits; for the chief gift of irrigation is the raising of

In addition to the land area available for reclamation through irrigation, there are in the United States some 80,000,000 acres of swamp and overflow land not now available for settlement, but susceptible of reclamation by drainage. These lands are distributed throughout every state, and among the more important areas lie along the Atlantic slopes, with considerable areas in the Pacific states. They are generally of great fertility, and if reclaimed by drainage would sustain a population of over ninety millions (50,000,000)—equal to the present population of the entire country. These wet lands of the United States are justly regarded as a commonwealth of rich resources, and should be utilized as need for homes on the land increases with our growth.

Through irrigation, new standards for fruit have been set. Apples grown on irrigated land have a richness of color and flavor, a perfection of form and fullness of size that have been a revelation to the world. Today the apples of irrigated orchards supply the tables of the best hotels and even royalty.

The demand is so great that apple-producing New England, New York and Michigan can seldom get sight of our irrigated fruits. Western cherries, too, grown on irrigated lands and shipped to the east, under an almost prohibitive transportation tax, are largely displaced by irrigated product, though some are fulfilling their real destiny as inspiring orchardists to strive for corresponding improvements in their own standards. The

continuous sunshine, which develops the saccharine, and by reason of growth and gradual ripening with the right quantity of water supplied when needed, so that the vital energy of the plant goes into the fruit, instead of being expended in maintaining waste. Not all lands or climates are adapted to citrus fruits, but wherever they grow these are made better by efforts of producers to imitate the standards

While fruits are better known than other irrigated products, they are no more striking than the more commonplace products of the field, which are not, to the same extent, revolutionizing the markets of the country and the world, only because the profits on fruits are so much greater. Yet for the sake of their horses, hogs, cattle and poultry, irrigators grow alfalfa, which under irrigation in western America has revolutionized forage production, multiplied the acre yield of nutriment for stock, and tempted farmers of almost every eastern state into experiments both with this jewel of the meadow itself and with the improvement of other forage crops.

Now does the tale more than begin with the raising of standards in products. Standards in methods of cultivation and care of fruit and vegetable, melon and forage, soon follow and are even more stimulating to the intelligence and energy of men. Largely through the experience of irrigators, we are beginning to realize that what the country needs is not more acres in cultivation, but more yield per acre cultivated; not more farms, but more productive farms; not more orchards, but more fruitful orchards; not bigger homesteads, but happier homes, in which a little land gives a richer and more enjoyable living than that drawn from poorly filled and larger acreage. Experts tell us that America's production of food stuffs is not keeping so far ahead of population but that exports are declining and prices are rising. Yet, if we are to maintain our lead among the nations of the earth, we must prepare food twice, thrice yes ten times our present ninety-three millions, and this can only be done by so striking the soil that it will burst into multiplied fruitfulness, as burst the rock into water under the stroke of Moses' rod.

Toward this end, our irrigated lands are moving more than all others; the irrigator soon learns that his water supply rather than his land means success, his wealth, and turns his energies from miles of furrow to square rods of fruitage; it is he who first learned that one acre is better than two, because it drinks only one-half the water yet gives as much or better product. The irrigator, that new-settled acres in the land of sunshine, and of irrigation ditches, are valued at \$1000 and \$2000 and even more, while few farms or orchard lands in long-settled states have reached that many hundreds. The cause is due first to improvement in quality of products, but second, and in even greater degree, to better methods of mixing brains with the soil and setting standards that are bound in time to spread afar and bless the entire

Even this hardly assesses the threshold of irrigation's gifts in higher standards. The improvement in method both demands and inspires larger vision, broader intelligence, and a more intensified individuality. And these, in turn are still further fostered by that concentration of social life which follows a reduction in area and multiplication in the yield of homesteads. Under ideal irrigation farms are small and neighbors near. A school house may be needed in a section instead of a township and a church every few sections instead of a much larger territory; so that schooling, public meetings and social gatherings are all made easy and

thereby very naturally become larger factors in their daily life; while the rural mail route is easily maintained because the patrons are many, and the telephone may be into every house because there are many homes to each mile of line. If humanity is to blossom all over this country, and if this land of free institutions is to attain its manifest destiny, population must become concentrated, not in cities but on producing areas. This demands readjustment of social customs, social ideals, social standards, and the way for this social readjustment is opening through the influence of irrigation and the example of irrigated lands.

Take the rural road as an illustration. With the settlement of this country, roads soon grow up as means of ready communication between the settlers' families, whose very lives often depended on intercommunication; and the common way virtually became the first public property in the colonies, and, ever since, the road tax has ranked foremost among our taxes, whether met by tolls or assessment. Now the amount of the tax, and the weight of the burdens on any community, is measured by the length of the road per family; and the goodness or badness of the road is fixed by the amount of tax the community can bear. Under irrigation the homesteads are

small and hence at many for each mile of road, instead of one or two, as is the case in some rural sections. Consequently, the tax per capita is reduced, and yet the returns suffice to make better roads, to raise the standards of road making, and thus to secure cheaper movement of commodities from farm to town and back; easier movement of persons from house to house; better care for harness and vehicles; higher grade draft animals and roadsters; superior standards of living; an improved taste and refinement in the growing generation; a better manhood and womanhood; a cleaner social sentiment and ideals in daily life. Indeed the common road strikes the keynote to our social progress and no one can deny the great making in the arid region without realizing that the newer states have already attained to high standards, and that the road problem of the country is destined to be inspired by the standards developed under irrigation.

Nor does all this measure the gift of irrigation in the highest standards. When the dry lands were first ex-

Suggs, Cincinnati  
Ames, New York  
Leifield, Pittsburgh  
Steele, E., Pittsburgh and Brooklyn.  
Toney, Chicago  
Drucke, New York  
Steele, William, St. Louis  
Steele, Cincinnati  
Ketter, Boston  
Fromme, Cincinnati  
Bell, Brooklyn  
Moore, Philadelphia  
Loudermilk, Louis, St. Louis  
Barger, Brooklyn  
Tyler, Boston  
Burns, Cincinnati and Philadelphia  
Smith, F., Cincinnati  
Hendrix, Pittsburgh  
Perdue, Boston  
Gentry, Cincinnati  
Brown, C., Boston  
Golden, St. Louis  
McQuillan, Cincinnati  
Curtis, Chicago, Boston and Philadelphia  
Weaver, Chicago, and Boston  
Schardt, Brooklyn  
Richter, Chicago  
Scanlan, Brooklyn  
Mattern, Boston  
Griffin, Chicago and Boston

questions confront the American people. These will begin to approach settlement soon after being raised and will be settled right and no other section of the country can contribute more to right settlement than the arid region, victimized by irrigation, in which human life and the things most necessary for its maintenance are brought into direct connection and relation, and in which human sentiments and emotions are balanced with natural resources and conditions. The organisms of the desert are different from those of humid lands, in that they have been adapted to the more rigorous surroundings; the life is more austere, intense and tenacious; and, in like manner, the human individuals and families of the one-time desert have evolved, and are still evolving, a clearer understanding of the essentials of existence, than those of regions in which the relations between man and nature are less rigid. With the new relations arise new customs, new conceptions, new standards of righteousness, and the men and these are bound to survive.

Consequently, while area is broad and the acres are many, with which irrigation has enriched our country, the other gifts of irrigation are still greater; for it has given us new and better standards, industrial, social, legal, mental, moral; and the perfect apple and luscious orange of the irrigated orchard, admirable as they are in themselves, may fitly be regarded as nothing more than symbols of the more elevated standards of human life traceable, after all, to the real gift of irrigation to humanity.

(Continued from Page Three.)

Wingo, St. Louis	18	65	22	8	916
Severold, Cincinnati	22	51	12	6	512
<b>Pitchers.</b>					
Pfeffer, Boston	26	8	25	0	1,000
McIntire, Chicago	25	1	42	0	1,000
Mathewson, New York	45	31	107	2	986
Brown, Chicago	53	8	53	1	984
Hendrix, Pittsburgh	22	12	45	1	983
Steele, Wm., St. Louis	45	14	88	2	981
Adams, Pittsburgh	40	3	42	1	978
Barger, Brooklyn	30	9	66	2	971
Harmon, St. Louis	51	11	98	2	972
Mattern, Boston	33	6	61	2	971
Humphries, Cincinnati and Philadelphia	25	4	29	1	971
Sorgs, Cincinnati	36	10	82	3	970
Rucker, Brooklyn	48	7	88	3	969
Sallee, St. Louis	36	7	55	2	969
Raymond, New York	17	6	23	1	967
Richie, Chicago	46	13	70	3	965
Alexander, Philadelphia	48	11	95	4	964
Drucke, New York	15	4	23	1	964
Steele, E., Pittsburgh and Brooklyn	36	11	81	3	960
Crandall, New York	41	9	59	2	958
Fromme, Cincinnati	38	8	56	3	955
Knetzer, Brooklyn	35	7	51	3	951
Burns, Cincinnati and Philadelphia	27	6	46	3	945
Reibach, Chicago	33	5	77	5	945
Wiltse, New York	30	19	44	4	940
Richie, Chicago	22	3	11	1	933
Bell, Brooklyn	18	2	40	3	932
Smith, F., Cincinnati	34	16	66	6	929
Leifield, Pittsburgh	42	12	82	7	921
Lerriffin, Chicago and Boston	16	3	24	2	921
Moore, Philadelphia	43	3	63	5	920
Marquard, New York	45	6	46	4	929
Brown, C., Boston	42	8	67	6	926
Cannitz, Pittsburgh	40	4	59	5	926
Ragon, Brooklyn	22	4	21	2	926
Chalmers, Philadelphia	38	11	50	5	924
Tones, Chicago	18	0	23	2	920
Cole, Chicago	22	2	52	5	917
Loudermilk, St. Louis	16	0	11	1	917
Ames, New York	24	7	68	7	916
Gaspar, Cincinnati	44	7	68	7	912
Geyer, St. Louis	29	5	35	4	909
McQuillan, Cincinnati	19	3	16	2	905
Schardt, Brooklyn	39	7	57	7	901
Golden, St. Louis	30	5	39	5	898
Curtis, Boston, Chicago and Philadelphia	24	7	37	5	898
Perdue, Boston	40	0	36	5	894
Tyler, Boston	38	8	58	8	892
Seaman, Brooklyn	22	1	31	4	889
Weaver, Chicago and Boston	33	3	34	5	881
Ferry, Pittsburgh	26	2	17	2	864
Keefe, Cincinnati	39	12	36	8	860
<b>Club Fielding.</b>					
	G.	P.O.	A.	E.	Pct.
Pittsburgh	155	4152	1857	232	963
Philadelphia	155	4108	1961	231	963
Brooklyn	154	4100	1780	241	962
St. Louis	158	4188	2040	261	960
Chicago	157	4211	2054	260	959
New York	154	4095	1926	256	959
Cincinnati	159	5260	2013	295	955
Boston	158	4111	2063	247	94

**Pitchers.**  
Record of those who pitched in fifteen or more games, arranged according to percentage of victories:

	No. Games		W.	L.	Pct.
	Pitched in.				
Marquard, New York	45	24	7	7	.774
Grandall, New York	41	15	5	5	.750
Cole, Chicago	42	18	7	7	.720
Alexander, Philadelphia	48	28	13	6	.688
Mathewson, New York	45	26	13	6	.687
Brown, M. Chicago	52	31	11	6	.676
Adams, Pittsburgh	40	22	12	8	.647
Reubach, Chicago	33	16	9	6	.643
Humphries, Philadelphia and Cincinnati	25	7	4	5	.628
Sallee, St. Louis	36	15	9	6	.625
McIntire, Chicago	25	11	7	8	.611
Geyer, St. Louis	20	9	6	6	.600
Ferry, Pittsburgh	26	6	6	6	.600
Raymond, New York	17	6	4	4	.600
Harmon, St. Louis	51	23	16	5	.590
Pfeffer, Boston	26	7	5	5	.583
Richie, Chicago	36	15	11	5	.577
Wittsie, New York	30	12	9	5	.571
Samnitz, Pittsburgh	40	20	15	5	.571
Rusin, Brooklyn	22	4	3	3	.521
Chalmers, Philadelphia	18	10	10	5	.505
Rucker, Brooklyn	48	22	18	5	.550
Sugas, Cincinnati	36	15	12	5	.536
Ames, New York	24	11	10	5	.524
Leifield, Pittsburgh	42	16	16	5	.500
Steele, E., Pittsburgh and Brooklyn	36	9	9	5	.500
Toney, Chicago	18	1	1	5	.500
Brucke, New York	15	4	4	5	.500
Steele, William, St. Louis	45	18	13	4	.486
Keefe, Cincinnati	39	12	13	4	.480
Knetzer, Brooklyn	35	11	12	4	.478
Fromme, Cincinnati	38	10	11	4	.476
Bell, Brooklyn	19	5	6	4	.455
Moore, Philadelphia	42	15	19	4	.441
Loudermilk, Louis, St. Louis	16	3	4	4	.423
Barger, Brooklyn	30	11	15	4	.423
Waller, Boston	28	7	10	4	.412
Burns, Cincinnati and Philadelphia	27	7	10	4	.412
Smith, F., Cincinnati	24	10	15	4	.410
Hendrix, Pittsburg	22	4	6	4	.400
Perdue, Boston	24	6	10	3	.375
Gaspar, Cincinnati	44	10	17	3	.370
Brown, C., Boston	42	8	18	3	.308
Golden, St. Louis	30	4	9	3	.308
McGarity, Cincinnati	19	2	5	3	.286
Curtis, Chicago, Boston and Philadelphia	24	11	24	3	.292
Weaver, Chicago, and Boston	33	5	14	2	.263
Schardt, Brooklyn	39	5	15	2	.250
Richter, Chicago	22	1	3	2	.250
Scanlan, Brooklyn	23	3	10	2	.241
Mattern, Boston	33	4	15	2	.211
Griffin, Chicago and Boston	16	0	6	0	.000